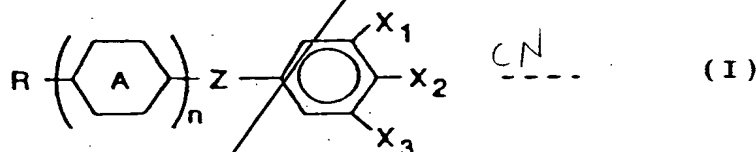


layer interposed therebetween, and an electrode structure for generating an electric field having a component predominantly in parallel with one of said pair of substrates, said electrode structure including a pixel electrode and a common electrode;

wherein a relationship between a distance l between said pixel electrode and said common electrode and a distance d between said pair of substrates is  $l/d \geq 2.0$ ; and

wherein said liquid crystal composite material includes a liquid chemical compound represented by a general chemical formula (I)



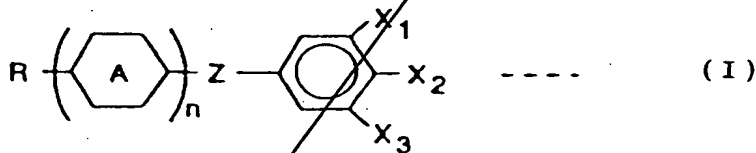
A<sub>1</sub> cont.

wherein in the formula (I), X<sub>1</sub>, X<sub>2</sub> and X<sub>3</sub> are selected from a group consisting of fluoro group, cyano group, trifluoromethyl group, trifluoromethoxyl group, nitro group and hydrogen atom, not all three X<sub>1</sub>, X<sub>2</sub> and X<sub>3</sub> being a hydrogen group; R is selected from a group consisting of alkyl group and alkoxy group having the carbon number 1 to 10 which can be substituted; Ring A is selected from a group consisting of cyclohexane ring, benzene ring, dioxane ring, pyrimidine ring, and [2, 2, 2]-bicyclohexane ring, Z is selected from a group consisting of single bonding, ester bonding, ether bonding, methylene, and ethylene; and n is 1 or 2.

Please rewrite claim 3 in independent form as follows:

SUB C2 3. (amended) A liquid crystal composite material [according to claim 1,] for use in a liquid crystal layer of a liquid crystal display device having a pair of substrates with the liquid crystal layer interposed therebetween, and an electrode structure for generating an electric field having a component predominantly in parallel with one of said pair of substrates;

wherein said liquid crystal composite material includes a liquid chemical compound represented by a general chemical formula (I)



wherein in the formula (I) X<sub>1</sub>, X<sub>2</sub> and X<sub>3</sub> are selected from a group consisting of fluoro group, cyano group, trifluoromethyl group, trifluoromethoxyl group, nitro group and hydrogen atom, not all three X<sub>1</sub>, X<sub>2</sub> and X<sub>3</sub> being a hydrogen group; R is selected from a group consisting of alkyl group and alkoxy group having the carbon number 1 to 10 which can be substituted; Ring A is selected from a group consisting of cyclohexane ring, benzene ring, dioxane ring, pyrimidine ring, and [2, 2, 2]-bicyclohexane ring, Z is selected from a group consisting of single bonding, ester bonding, ether bonding, methylene, and ethylene; and n is 1 or 2; and

K<sub>2</sub>/Δε < 9.10<sup>-8</sup> (dgn)

A2  
cont.

wherein a relation between an elasticity constant  $K_2$  and a dielectric anisotropy  $\Delta\epsilon$  of said liquid crystal composite material satisfies the relation  $K_2/\Delta\epsilon < 9 \times 10^{-8}[\text{dyn}]$ .

Please amend claim 4 as follows:

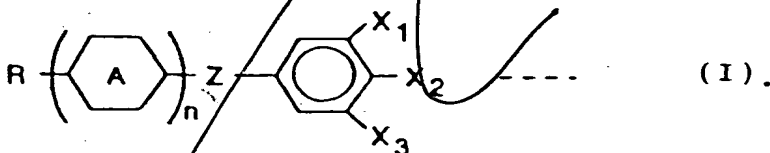
Claim 4, line 8, delete " $\Omega m$ " insert  $--\Omega \cdot \text{cm}--$ ;

line 9, delete " $\Omega m$ " insert  $--\Omega \cdot \text{cm}--$ .

Please add the following new claims:

SUB 2

6. A liquid crystal composite material according to claim 4, wherein said liquid crystal composite material includes a liquid chemical compounded represented by a general chemical formula (I)

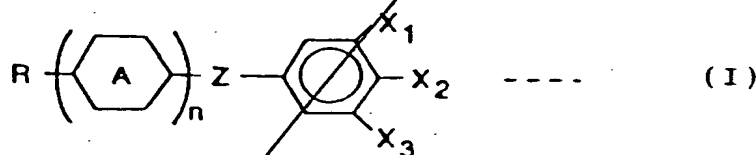


A3

7. A liquid crystal composite material according to claim 4, wherein said electrode structure of said liquid crystal display device includes a pixel electrode and a common electrode, and a relationship between a distance  $l$  between said pixel electrode and said common electrode and a distance  $d$  between said pair of substrates is  $l/d \geq 2.0$ .

SUB  
C3 8. In a liquid crystal display device having a liquid crystal layer interposed between a pair of substrates, and an electrode structure for generating an electric field having a component predominantly in parallel with one of said pair of substrates provided on one of said pair of substrates;

wherein said liquid crystal composite material includes a liquid chemical compound represented by a general chemical formula (I)



(A3  
cont. wherein in the formula (I), X<sub>1</sub>, X<sub>2</sub> and X<sub>3</sub> are selected from a group consisting of fluoro group, cyano group, trifluoromethyl group, trifluoromethoxyl group, nitro group and hydrogen atom, not all three X<sub>1</sub>, X<sub>2</sub> and X<sub>3</sub> being a hydrogen group; R is selected from a group consisting of alkyl group and alkoxyl group having the carbon number 1 to 10 (which can be substituted; Ring A is selected from a group consisting of cyclohexane ring, benzene ring, dioxane ring, pyrimidine ring, and [2, 2, 2]-bicyclohexane ring, Z is selected from a group consisting of single bonding, ester bonding, ether bonding, methylene, and ethylene; and n is 1 or 2.

9. In a liquid crystal display device according to claim 8, wherein X<sub>2</sub> is a cyano group.

10. In a liquid crystal display device according to claim 8, wherein a relation between an elasticity constant  $K_2$  and a dielectric anisotropy  $\Delta\epsilon$  of said liquid crystal composite material satisfies the relation  $K_2/\Delta\epsilon < 9 \times 10^{-8} [\text{dyn}]$ .

11. In a liquid crystal display device according to claim 8, wherein said liquid crystal composite material has a resistivity which is no greater than  $1 \times 10^{13} \Omega \cdot \text{cm}$  and not less than  $1 \times 10^9 \Omega \cdot \text{cm}$ .

12. In a liquid crystal display device having a liquid crystal layer interposed between a pair of substrates, and an electrode structure for generating an electric field having a component predominantly in parallel with one of said pair of substrates, said electrode structure being provided on one of said pair of substrates, said liquid crystal layer including a liquid crystal composite material having a resistivity which is no greater than  $10^{13} \Omega \cdot \text{cm}$  and not less than  $1 \times 10^9 \Omega \cdot \text{cm}$ .

13. In a liquid crystal display device according to claim 12, wherein said liquid crystal composite material includes a liquid chemical compound represented by a general chemical formula (I)

